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ABSTRACT

A study examined time spent on comprehension instruction by award winning, masters degree, and non-masters degree teachers. Observations of reading lessons were made under two conditions; not-cued and cued to teach "ideal" comprehension instruction lessons. Subjects were 36 public school third-, fourth-, fifth-, and sixth-grade teachers teaching in 20 different schools located in 12 different public school districts of a midwestern state. Results were analyzed using a one between, one within analysis of variance with repeated measures on one factor with respect to percentage of time spent on prereading activities, comprehension instruction, and all comprehension activities. Results showed there were no significant differences among the award winning, masters degree, and non-masters degree teachers in the percentage of time spent on pre-reading activities or on comprehension instruction. Award winning teachers did allocate significantly more time than non-masters degree teachers to making assignments and to giving individual help with those assignments. When told that comprehension instruction was the purpose of observations, teachers did not increase the percentage of time for prereading activities or comprehension instruction. Instead they significantly increased the percentage of time spent asking assessment questions, listening to students' answers, and giving corrective feedback. (Eight tables of data, 2 appendixes of categories and definitions of Reading Activities and Teacher Behaviors, and 38 references are attached.) (Author/RAE)

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Comprehension Instruction of Award Winning Teachers, Masters Degree Teachers and Non-Masters Degree Teachers

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Running head: COMPREHENSION INSTRUCTION OF THREE TEACHER GROUPS

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Abstract

Time spent on comprehension instruction by award winning, masters degree, and non-masters degree teachers was studied. Observations of reading lessons were made under two conditions; not-cued and cued to teach "ideal" comprehension instruction lessons. Results with respect to percentage of time spent on prereading activities, comprehension instruction, and all comprehension activities were analyzed using a one between, one within analysis of variance with repeated measures on one factor. Results showed there were no significant differences among the award winning, masters degree, and non-masters degree teachers in the percentage of time spent on prereading activities or on comprehension instruction. Award winning teachers did allocate significantly more time than non-masters degree teachers to making assignments and to giving individual help with those assignments. When told that comprehension instruction was the purpose of observations, teachers did not increase the percentage of time for prereading activities or comprehension instruction. Instead, they significantly increased the percentage of time spent asking assessment questions, listening to students' answers, and giving corrective feedback.

Comprehension Instruction of Award Winning Teachers, Masters Degree Teachers, and Non-Masters Degree Teachers

The Commission on Reading (1985) concludes Becoming a Nation of Readers by stating that "America will become a nation of readers when verified practices of the best teachers in the best schools can be introduced throughout the country" (p. 120). Research has identified some of these verified teaching practices. Rosenshine and Stevens (1984) cite teacher-directed instruction, group instruction, academic-engaged time and a strong academic emphasis as general instructional procedures that have been correlated with reading achievement gain. Teacher-directed instruction is explained as a sequence of teacher demonstration, guided practice, feedback and corrections, and independent practice.

Because reading is now defined as a constructive process, the Commission on Reading (1985) advocates the use of direct comprehension instruction to teach students strategies for comprehending text. Comprehension strategies successfully taught to students include (a) making inferences (Hansen & Pearson, 1983; Oakhill, 1984), (b) identifying task demands (Raphael, Winograd, & Pearson, 1980; Raphael, Wonnacott, &

Pearson, 1983), (c) making predictions (Anderson, Shirey, & Mason, 1981; Au & Mason, 1981-82), (d) summarizing (Brown, Campione, & Day, 1981; Taylor, 1982), (e) creating mental images (Kulhavy & Swenson, 1975; Lesgold, McCormick, & Golinkoff, 1975), and (f) finding main ideas (Baumann, 1984).

In addition to direct comprehension instruction, prereading activities are also cited by the Commission on Reading (1985) as benefiting comprehension. These activities include activating and/or building background knowledge (Cosgrove, 1984; Graves, Cooke, & LaBerge, 1983; Pearson & Gallagher, 1983), preteaching vocabulary (Beck, Perfetti, & McKeown, 1982; Gipe, 1979), preteaching text structure (Fitzgerald & Spiegel, 1983), and using prereading questions (Memory, 1983; Tierney & Cunningham, 1984).

Since direct comprehension instruction and prereading activities can increase comprehension, we would expect the best teachers to use them extensively. But who are the best teachers? Several methods of identifying the best teachers have been used. Early studies of teacher effectiveness were often based on principals' ratings of effectiveness (Rupley, Wise, & Logan, 1986). Process-product researchers built a

paradigm around the use of student outcome measures to determine who is and is not effective (Hoffman, 1986). Other researchers have focused on the relationship between instructional decision making and teacher effectiveness (Duffy & Ball, 1986).

Another approach has been the use of a normative model constructed from the researcher's knowedge and interpretation of the literature. Durkin (1979) used such a model when she tried to determine the status of comprehension instruction by observing third through sixth grade reading and social studies classes for 17,997 minutes. She found less than one percent of instructional time was spent on comprehension instruction and about 15% of class time was spent on prereading activities. Subsequent studies have supported Durkin's findings (Durkin, 1984; Kurth & Greenlaw, 1980; Mason, 1983; Mason & Osborn, 1982; Meyer, 1984; Neilsen, Rennie, & Connell, 1982).

In this study we also used a normative model to define prereading activities and comprehension instruction. Because we were interested in finding "best" teachers of comprehension, we identified "best" teachers in two ways; namely, award winners and masters degree holders. Observations of their reading classes

were made to determine the percentage of time they spent on prereading activities, on comprehension instruction, and on other comprehension activities. A third group, non-masters teachers, served as a control group.

The teachers in the three groups represent different amounts of experience and education. Research on the effects of experience and education is conflicting. Lewis and Ouellette (1979) found that additional teacher experience and education did not increase student achievement while McNeil (1974) and Fogarty, Wang, & Creek (1983) found that teaching experience was correlated with higher student achievement.

The teachers in the present study were observed teaching reading under two conditions. First, they were not-cued about comprehension instruction being the focus of observations, while under the second condition they were cued. In previous observational studies of comprehension instruction, teachers did not know that comprehension instruction was the focus of observations. Cueing teachers may provide a more accurate assessment of teacher competence in comprehension instruction.

In summary, one purpose of this study was to investigate the percentage of time allocated to

comprehension instruction by award winning teachers, masters degree teachers, and non-masters degree teachers. The second purpose was to compare the percentage of time teachers normally spend on comprehension instruction with what teachers do when cued to prepare "ideal" comprehension instruction lessons.

Methods

Subjects

The subjects in this study were 36 public school third-, fourth-, fifth-, and sixth-grade teachers teaching in 20 different schools located in 12 different public school districts of a midwestern state. These districts represent urban, suburban, and small town-rural areas. The 36 teachers were selected on the basis of their identification as one of three groups of teachers.

Twelve teachers were award winning teachers. These teachers received a Teacher of Excellence award for being a semi-finalist in the state's Teacher of the Year program; some were also finalists. They received their awards between 1972 and 1982. These teachers were not selected because of their proven expertise in teaching reading. They were chosen because of their leadership

in their schools, districts, and/or state. These teachers provided leadership in capacities such as part-time teaching of language arts college courses, conducting inservice programs, supervising reading programs, serving as reading specialists, serving on state education department committees, and serving as instructional leaders of teams of teachers. Thus, they were selected because their awards and leadership gave them prestige and influence in their schools and districts. Their average number of years of teaching experience was 19.25 and their average number of graduate level reading courses was 3.17. The last year these teachers had a reading course, either graduate or undergraduate, ranged from 1960 to 1985 (see Table 1).

Insert Table 1 about here

The second teacher group was defined as teachers with masters degrees. Their degree programs included two or more graduate level reading courses. The average number of years of teaching experience for the masters degree group was 16.83 and their average number of graduate level reading courses was 5.42. The last year these teachers had a graduate level reading course

ranged from 1969 to 1984 (see Table 2).

Insert Table 2 about here

The third teacher group was defined as non-masters degree teachers. Their highest degree was a bachelor's degree. Five of these teachers had taken one graduate level reading course so the group average for number of graduate level reading courses was .42. Their average number of years of teaching experience was 9.25. The last year these teachers had a reading course, either undergraduate or graduate, ranged from 1960 to 1984 (see Table 3).

Insert Table 3 about here

Since all schools in which these teachers taught used ability grouping, each of the three groups of teachers included teachers of high, average, and low ability students. The average group size for each of the three teacher groups was 15 students. Size of their groups ranged from six to twenty-five students for award winning teachers, from three to twenty-six students for masters degree teachers, and from six to thirty-four

students for non-masters teachers. The ability groups were almost equally distributed across the teacher groups (see Tables 1, 2, and 3).

Observation Instrument

The categories of Durkin (1979, 1984) and Sindelar et al. (1984) were used as the foundation for the categories of the observation instrument. Sindelar et al. developed observation categories to determine teacher effectiveness in special education programs. The categories on our observation instrument were defined to be mutually exclusive and comprehensive so that any and every classroom event could be recorded in only one way.

The observation instrument consisted of two main categories; namely, reading activity and teacher behavior. The reading activities referred to specific phases of the lesson (see Appendix A). Teacher behaviors focused on the teacher's words and actions and referred to how each phase of the lesson was taught (see Appendix B).

Procedures

All teachers used basal readers. Ginn, Houghton Mifflin, and Economy were series used by all three teacher groups. In addition, two award winning teachers

used Holt, Rinehart, and Winston. Each teacher was observed teaching two entire basal reading stories to the same group of students. A basal reading story was defined as beginning with the introduction to a basal story and ending with the last activity before the next basal story was introduced. This included the teaching of a story, of skills, and of any other activities introduced by the teacher. Since the number of days teachers used to teach a basal story ranged from two to eleven, the amount of observation time for teachers also varied. Observations were conducted on successive days to insure observation of complete basal reading lessons.

For the first basal reading story, teachers were told only that the researcher was interested in observing typical reading lessons to see how reading was being taught. Thus, for the first sequence of observations, teachers were not-cued about the study's focus on comprehension instruction. Before the observations of the second basal reading story, teachers were cued about the researcher's interest in comprehension instruction. Specifically, teachers were told that comprehension instruction would be the object of the observations and were then asked to prepare "ideal" comprehension instruction lessons for those

observations.

Observations were made by two of the authors and two assistants. The training procedures suggested by Borg and Gall (1983) were used to train the assistants to use the observation instrument. As a result of these training sessions, minor refinements of category definitions were made on the observation instrument. Criterion-related agreement (Frick & Semmel, 1978) was measured before and during the study. The major author served as the expert coder. Agreement with the expert coder was checked approximately every two weeks. In addition, informal discussions with the expert coder were held at least once a week. Scott's coefficients of agreement (Flanders, 1967; Frick & Semmel, 1978) for reading activities ranged from .85 to .94 with a mean of .90. The observers' agreement scores for the teacher behaviors ranged from .83 to .90 with a mean of .87. The observers' agreement scores for the comprehension-teacher behaviors combination ranged from .81 to .89 with a mean of .86. All of these agreement percentages exceeded the recommended minimum of .70 (Borg & Gall, 1983).

An interval time sampling technique was used to direct the recording of events. A number-letter code

(e.g. 10AQ) was recorded every ten seconds. The numbers designated the reading activity and the letters designated the teacher behavior. Total observation time was 109.5 hours with an average of three hours observation for each teacher.

Data Analysis

For each teacher the ten second tallies were converted to minutes and percentages of observed time. For descriptive purposes cumulative percentages for each teacher group were calculated by dividing the total number of tallies for a particular activity or behavior by the total number of tallies for all activities and behaviors. To compare teacher groups, an average percentage for each group was also calculated. The average percentages were calculated by summing the individual percentages of the twelve teachers making up a teacher group and dividing by twelve.

Since this study was concerned with how teachers were teaching comprehension, not all of the recorded data were used in this study. The following variables were the dependent measures: prereading activities, comprehension instruction, and all comprehension activities. Prereading activities included building background knowledge, preteaching vocabulary in

isolation, preteaching vocabulary in context, preteaching text structure, and using prereading questions (see Appendix A). Comprehension instruction included teachers modeling comprehension processes, presenting comprehension information, using instructional questions, and using prediction questions (see Appendix B). All comprehension activities included all teacher behaviors when comprehension was the reading activity. Thus, the category comprehension activities included the comprehension instruction teacher behaviors as well as other teacher behaviors such as making comprehension assignments, focusing attention, reading aloud, asking assessment questions, responding to student questions, giving corrective feedback, monitoring or listening, and giving individual assistance.

The independent variables were teacher group and the cued condition. Results with respect to average percentage of time spent on prereading activities, on comprehension instruction, and on all comprehension activities were analyzed using a one between, one within analysis of variance with repeated measures on one factor. The between factor, group of teacher, had three levels (award winning, masters degree, non-masters

degree). The within factor, cued, was a repeated measure factor having two levels (not-cued, cued).

Results

Prereading Activities

The actual minutes spent on prereading activities by the three groups of teachers under the not-cued and cued conditions are listed in Table 4 as Pre Act Total. The actual minutes spent by teachers on prereading activities ranged from 242 minutes to 131 minutes. When not-cued, award winning teachers spent almost twice as much time on prereading activities as they did when cued. The time spent on prereading activities by the other teacher groups remained relatively constant under both conditions. Combining both conditions, award winning teachers spent 373 minutes, masters degree teachers spent 286 minutes and non-masters teachers spent 305 minutes on prereading activites.

Insert Table 4 about here

Although the absolute amount of time spent on prereading activities varied from group to group, especially in the non-cued condition, we were interested in exploring teachers' allocation of available time to

prereading activities. A repeated measures ANOVA was used to test for differences of allocated time among the three groups of teachers, between the not-cued and the cued condition, and between the group of teacher by cued condition interaction. Main effects for group of teacher, $F(2,33) = .40$, $p > .05$, and cued condition, $F(1,33) = 1.39$, $p > .05$, were not statistically significant, nor was the effect for the group of teacher by cued condition interaction, $F(2,33) = 3.03$, $p > .05$. See Table 5 for means and standard deviations. The three groups of teachers did not significantly differ in the percentage of time they allocated to prereading activites. In fact, the means reveal that both award winning and masters degree teachers decreased the time they allocated to prereading activites when cued while the non-masters teachers increased the time they allocated to prereading activities when cued. While this might point to a significant interaction, the differences were not quite large enough to be significant. Specifically, for $F(2,33) = 3.03$ the $p = .06$.

Insert Table 5 about here

Since prereading activities consists of five activities, one explanation for this nonsignificant finding might be that the effects of some of the prereading activities canceled out the effects of other prereading activities. Therefore, each of the prereading activities was then analyzed separately. The possibility of multicollinearity among these variables was checked by calculating within group correlations for each teacher group. These calculations showed that these variables should be analyzed separately. The repeated measures ANOVA showed no significant effects or interactions for any of the five prereading activities.

Comprehension Instruction

The actual minutes spent on comprehension instruction by the three groups of teachers under the not-cued and cued conditions are listed in Table 6 as Comp Inst Total. The actual minutes spent on comprehension instruction ranged from 139 minutes to 51 minutes. Combining both conditions, award winners spent 265 minutes, masters degree teachers spent 149 minutes and non-masters teachers spent 108 minutes on comprehension instruction. Children in award winners' classrooms received almost twice as much comprehension instruction as children in masters degree teachers'

classrooms and almost two and half times as much comprehension instruction as children in non-masters degree teachers' classrooms.

Insert Table 6 about here

Although children in award winners' classrooms received more actual minutes of comprehension instruction than did children in the classrooms of masters and non-masters teachers, we were interested in analyzing the teachers allocation of available time to comprehension instruction. A repeated measures ANOVA was used to test for differences among the three groups of teachers, between the not-cued and the cued conditions, and between the group of teacher by cued condition interaction. Main effects for group of teacher, $F(2,33) = 2.29$, $p > .05$, for the cued condition, $F(1,33) = .16$, $p > .05$, and for the group of teacher by cued condition interaction, $F(2,33) = .64$, $p > .05$, were not statistically significant. Means and standard deviations are listed in Table 7. Since comprehension instruction was defined in terms of four teacher behaviors, the possibility of the effects of these

behaviors canceling each other out exists. It was thought this could be an explanation for the nonsignificant finding. Within group correlations revealed high correlations among teacher modeling, presenting information, and using instructional questions. These were then combined for analysis while prediction questions was analyzed separately because of its low correlations with the other comprehension instruction behaviors. The repeated measures ANOVA revealed no significant effects or interactions for any of the comprehension instruction teacher behaviors.

Insert Table 7 about here

These results suggest that there is no significant difference among the three groups of teachers in the percentage of time they allocate to comprehension instruction. They also suggest that teachers do not increase the time they allocate to comprehension instruction when asked to prepare "ideal" comprehension instruction lessons. Finally, the results reveal there is no interaction between group of teacher and the cued condition.

All Comprehension Activities

All comprehension activities refer to any teacher behavior that occurs when comprehension is the reading activity. Behaviors included are making assignments, focusing attention, reading aloud, using audio-visuals, asking assessment questions, responding to questions, giving corrective feedback, monitoring or listening, giving individual assistance, giving positive reinforcement, waiting, distributing or collecting assignments and the comprehension instruction teacher behaviors of teacher modeling, presenting information, asking instructional questions, and asking prediction questions.

The actual minutes spent on all comprehension activities by the three groups of teachers under the not-cued and cued conditions is listed in Table 6 as Comp Act Total. When combining both the not-cued and cued conditions, it is evident that the award winning teachers spent almost twice as much time on all comprehension activities compared to masters and non-masters degree teachers.

Although the absolute amount of time spent on all comprehension activities varied from group to group, especially between the award winning teachers and the

other two teacher groups, we were again interested in exploring teachers' allocation of available time to all comprehension activities. The repeated measures ANOVA was used to test for differences among groups of teachers, between the cued conditions, and between the group of teacher and cued condition interaction. Main effects for group of teacher, $F(2,33) = 3.32$, $p < .05$, and for the cued condition, $F(1,33) = 4.46$, $p < .05$, were statistically significant while the main effect for the group of teacher by cued condition interaction, $F(2,33) = .65$, $p > .05$ was not statistically significant. The means and standard deviations are listed in Table 8.

Insert Table 8 about here

Because they occurred less than one percent of the observation time, focusing attention, reading aloud, using audio-visuals, responding to questions, giving positive reinforcement, waiting, and distributing and collecting assignments were eliminated from further analysis. As already reported no significant differences were found among the three groups of teachers or between the not-cued and cued conditions for

the comprehension instruction behaviors. Therefore, teacher modeling, presenting information, and asking instructional and prediction questions were also eliminated from the follow-up analysis. The remaining teacher behaviors of making assignments, asking assessment questions, giving corrective feedback, monitoring or listening, and giving individual assistance then became the focus of the follow-up analysis.

Before further analysis, the possibility of interdependency among these variables was checked. Within group correlations revealed high correlations among asking assessment questions, monitoring/listening, and giving corrective feedback. During observations, the researchers noted that a frequently occurring sequence of teacher behaviors was asking an assessment question, listening to a student's answer, and giving corrective feedback. An examination of the coding sheets supported this conclusion. For these reasons asking assessment questions, giving corrective feedback, and monitoring/listening were combined for analysis.

To find which teacher behavior caused the significant findings, a repeated measures ANOVA was then used to test for differences among the types of teachers

and between the cued conditions. For making assignments the main effect for group of teacher, $F(2,33) = 6.40$, $p < .01$, was statistically significant, but the main effect for the cued condition, $F(1,33) = .19$, $p > .05$, was not significant. The Scheffe' post hoc comparison procedure revealed that award winning teachers gave proportionally more comprehension related assignments than non-masters teachers, $p < .01$. For giving individual assistance the main effect for group of teacher, $F(2,33) = 5.36$, $p < .01$, was statistically significant, but the main effect for the cued condition, $F(1,33) = 1.03$, $p > .05$, was not significant. The Scheffe' post hoc test revealed that award winning teachers gave proportionally more individual assistance on comprehension related assignments than masters degree and non-masters teachers, $p < .05$. For the combined sequence of asking assessment questions, monitoring/listening, giving corrective feedback, the main effect for group of teacher $F(2,33) = .58$, $p > .05$, was not statistically significant, but the main effect for the cued condition, $F(1,33) = 4.41$, $p < .05$, was statistically significant. When they were cued, teachers allocated more time to asking assessment

questions, monitoring/listening to the answer, and then giving corrective feedback.

To sum, these results indicate that award winning teachers allocated more time to giving comprehension-related assignments such as workbook pages and worksheets than non-masters teachers and that award winning teachers allocated more time to giving individual assistance with the comprehension-related workbook and worksheet assignments than masters degree or non-masters teachers. These results also indicate that when they were asked to prepare ideal comprehension instruction lessons, all teachers significantly increased the amount of time they allocated to asking assessment questions, monitoring/listening to students' answers, and then giving corrective feedback.

Discussion

The conclusion of Becoming a Nation of Readers (1985) stresses the verified practices of the best teachers as models for reading instruction. In this study we were interested in studying the verified practice of direct comprehension instruction by some of the best teachers. "Best" teachers were identified as award winning teachers holding leadership positions and masters degree teachers who completed graduate-level

reading courses. Non-masters degree teachers were also observed so that comparisons could be made with the award winning and masters degree teachers.

The findings of this study can best be understood by looking at each of the questions of the study. The first question asked if there is a difference in the percentage of time the three teacher groups allocated to comprehension instruction. To gain a complete picture, time allocated to prereading activities, to comprehension instruction itself, and to all comprehension related teacher behaviors was analyzed.

There was no difference among the three teacher groups in the amount of time they allocated to prereading activities or to comprehension instruction as defined in this study. Award winning teachers did allocate significantly more time than the masters and non-masters teachers to the giving of comprehension-related assignments and to the giving of individual assistance to help students complete those assignments. Classroom observations revealed those assignments to be worksheets and workbook pages.

Masters degree teachers had taken an average of five graduate courses in reading, yet they did not allocate significantly more time than the non-masters

teachers to prereading activities or to comprehension instruction.

A number of possibilities exist to explain why we failed to find differences among the three groups of teachers in the percentage of time they allocated to comprehension instruction. First, our identification of award winning and masters degree teachers as "best" comprehension instructors may not be accurate. The large within groups variation indicates that there may be "best" comprehension instructors within each of the groups. Better methods of identifying "best" comprehension instructors need to be found. Second, it could be argued that since the average teaching experience of non-masters degree teachers was less than the average teaching experience of award winning and masters degree teachers, it is possible that the non-masters teachers had greater access to recent comprehension instruction information. However, this appears unlikely since all three teacher groups included approximately the same number of teachers who took their last reading course in the 1980's. Finally, teachers may have simply been following manual suggestions since all three teacher groups predominately used the same three basal series.

The second question is whether there would be a difference in the percentage of time the 36 teachers allocated to comprehension instruction when they were not-cued compared to when they were cued. For the not-cued condition teachers did not know that comprehension instruction was the focus of the observations. For the cued condition teachers knew that comprehension instruction was the purpose of observations and were asked to prepare "ideal" comprehension instruction lessons.

Since percentage of time allocated to reading activities and teacher behaviors can provide insight into teachers' knowledge and beliefs about appropriate reading instruction, we drew several conclusions from our findings. The results suggest, first, that teachers do not think of prereading activities as an important part of comprehension instruction since they did not increase the percentage of time allocated to prereading activities when they were cued. Second, the results suggest that teachers do not know how to teach comprehension as defined in this study since they did not increase the percentage of time they allocated to comprehension instruction when specifically asked to prepare "ideal" comprehension instruction lessons. It

is possible that teachers may not have increased their prereading and comprehension instruction time because they felt they were already allocating sufficient time to them. They did spend approximately 15% of class time on prereading activities and 8% of class time on comprehension instruction. The time spent on prereading activities is the same as Durkin (1979) reported, but the time spent on comprehension instruction is greater than the less than one percent she found.

Finally, the results suggest that teachers are confused about the difference between instructional assessment of comprehension and direct instructional teaching of comprehension. When asked to prepare "ideal" comprehension instruction lessons, the 36 teachers increased their testing of students' comprehension by increasing the percentage of assessment questions asked, the percentage of time they listened to students' answers to those questions, and the percentage of time they gave corrective feedback to the students' answers. Since some of the most recent concepts about the need for direct instruction and about the modeling of comprehension processes are so new, it is possible that while teachers would like to use direct instruction, they do not know how to do it. Thus, it

seems even experienced teachers need additional information about comprehension instruction.

Appendix A

Categories and Definitions of Reading Activities

02 Building Background

Using a picture, object, thought provoking question, or other activity for the purpose of promoting student interest in the passage and/or presenting information pertinent to the passage to add to students' prior knowledge of the topic.

03 Preteaching Vocabulary - Words in Isolation

Providing aid to students to help them decode and/or understand the meaning of words that occur in the passage. Words are presented in isolation.

04 Preteaching vocabulary - Words in Context

Providing aid to students to help them decode and/or understand the meaning of words that occur in the passage. Words are presented in the context of a sentence or phrase.

05 Preteaching Text Structure

Providing information about the structure of the particular passage to be read.

06 Prereading Questions

Asking questions prior to reading the passage to set purposes for reading.

07 Silent Reading

Students reading the passage silently.

08 Round Robin Oral Reading

Students taking turns reading orally while those not reading are expected to read the same selection silently.

09 Purposeful Oral Reading

Students reading orally to answer a question, to present a play, to practice reading with expression, for the purpose of diagnosis by the teacher, or for some other specific purpose.

Code according to the skill to which the instruction or practice is related.

10 Comprehension

11 Phonics

12 Structural Analysis

13 Word Meanings

14 Study Skills

Other

15 Non-Instructional Activities

Events not related to the reading lesson, such as making announcements, transition times between reading groups, waiting for the class to get settled, or non-instructional management activities.

16 Transition within the Lesson

Transitions from one part of the reading lesson to another, such as from preteaching vocabulary to prereading questions.

Appendix B

Categories and Definitions of Teacher Behaviors

TM - Teacher Modeling

TM includes:

1. demonstrating how to do an activity,
2. using a "think aloud" technique to demonstrate a thought process,
3. reading orally to demonstrate how to phrase properly or how to read expressively.

TM excludes:

1. telling students how to do an activity that the teacher does not actually demonstrate. (PI)

PI - Presenting Information Orally

PI includes:

1. telling or explaining content-related information,
2. telling students how to do an activity, but not actually demonstrating the activity,
3. telling students how to use a particular thinking process.

PI excludes:

1. giving directions for activities not related to the reading lesson, (CM)

2. giving oral directions for reading lesson assignments. (MA)

MA - Making Assignments

MA includes:

1. assigning passages to read or written work to do,
2. giving directions or explaining assignments related to the lesson,
3. answering questions regarding a reading assignment,
4. reading the directions for an assignment to the group,
5. writing directions on the chalkboard.

MA excludes:

1. making assignments that are not related to the reading lesson. (CM)

FA - Focusing Attention

FA includes:

1. giving directives or commands to focus students' attention on content-related material, such as "Look at the board," "Listen carefully," "I will read the answers only once," "Read the next sentence," or "Open your books to page ...."

FA excludes:

1. reprimanding, such as "Be quiet," (NI)
2. making assignments. (MA)

RA - Teacher Reading Aloud

RA includes:

1. reading that is part of the reading lesson,
2. reading a selection that is related to the passage in the lesson or to a reading skill being taught.

RA excludes:

1. reading aloud for the purpose of modeling how a passage should be read, (TM)
2. reading directions for assignments. (MA)

AV - Using Audio-Visual Aids

Note: If the teacher is using audio-visuals and talking at the same time, code only the verbal behavior.

AV includes:

1. writing on a chalkboard, overhead projector, or chart,
2. using content-related audio-visual materials,
3. presenting pictures or objects related to the passage,
4. drawing charts, graphs, or pictures to

illustrate part of the lesson.

AV excludes:

1. writing directions, (MA) questions, (AQ) or announcements. (CM)

AQ - Assessment Questions

AQ includes:

1. asking questions to assess student knowledge,
2. probing or restating assessment questions,
3. allowing wait time for students to think before answering,
4. dictating words or sentences for the purpose of testing.

AQ excludes:

1. asking unrelated questions such as "How are you?" (SI) or "Where is your notebook?", (NI)
2. asking behavior management questions such as "Are you paying attention?", (NI)
3. asking instructional (IQ) or predictive questions. (PQ)

IQ - Instructional Questions

IQ includes:

1. asking questions that deal with a process, rather than a product such as "How did you find that answer?" "What word in the story

gave you a clue ...?"

2. asking questions designed to instruct rather than to assess,
3. asking rhetorical questions to stimulate thought.

IQ excludes:

1. assessment questions, (AQ)
2. prediction questions, (PQ)
3. questions unrelated to the lesson.

PQ - Prediction Questions

PQ includes:

1. questions that ask students to make predictions, such as "What do you think will happen next?"

PQ excludes:

1. assessment questions, (AQ)
2. instructional questions, (IQ)
3. questions not related to the lesson.

RQ - Responding to Student Questions

RQ includes:

1. responding only to student-generated, content-related questions or comments,
2. clarifying or repeating student questions,
3. discussing material in response to student

questions.

RQ excludes:

1. responding to questions unrelated to the content, such as "What page are we on?" (FA)

CF - Corrective Feedback

CF includes:

1. providing students with information regarding the accuracy of verbal or written responses on content-related tasks,
2. reviewing a corrected test or assignment,
3. guiding students to correct their own assignments,
4. repeating a student answer.

CF excludes:

1. comments such as "Your paper is neat." (TR),
2. positive or negative comments related to work habits or behavior management. (TR or NI)

ML - Monitoring or Listening

ML includes:

1. listening to students' content-related discussion, answer, or questions,
2. listening to students read orally,
3. observing what students are doing as they work on assignments related to the lesson.

ML excludes:

1. waiting for students to stop inappropriate behaviors. (WT)
2. the teacher engaging in noncontent-related work instead of observing students as they work on assignments. (CM)

IA - Individual Assistance

IA includes:

1. providing individual help to students on reading lesson tasks,
2. prompts or hints as students read orally.

IA excludes:

1. responses to student questions that are directed to entire group. (RQ)

CM - Classroom Management and Organization

CM includes:

1. making announcements, discussing noncontent-related materials,
2. grading papers or taking grades in class,
3. writing lesson plans,
4. doing paperwork, making dittos,
5. talking to a classroom visitor such as a parent, principal, or other teacher,
6. gathering needed materials.

CM excludes:

1. behavior management activities. (TR or NI)

SI - Social Interaction

SI includes:

1. socializing with students,
2. discussing personal experiences not related to the lesson,
3. playing non-instructional games,
4. telling jokes.

SI excludes:

1. discussing personal experiences of the student or teacher that are related to the lesson. (PI)

NI - Negative Interaction

NI includes:

1. punishing, reprimanding or disciplining,
2. telling students to "pay attention" or to "quiet down,"
3. implementing contingencies of a behavior management program, such as writing a student's name on the board,
4. physically restraining or redirecting a student.

NI excludes:

1. corrective feedback about the accuracy of assigned work. (CF)

DC - Distributing or Collecting Materials

DC includes:

1. distributing or collecting only materials related to the lesson.

DC excludes:

1. distributing or collecting materials not related to the lesson (CM).

TR - Teacher Reinforcement

TR includes:

1. providing positive reinforcement to students with regard to their behavior, not the accuracy of their responses,
2. statements such as "I like the way you are working," or "Your paper is neat,"
3. a hug or pat on the back,
4. awarding tangible or token reinforcers.

TR excludes:

1. feedback regarding the accuracy of student performance. (CF)

WT - Waiting

WT includes:

1. waiting for students to assemble for instruction,
2. waiting for students to stop inappropriate behaviors,
3. waiting for students to respond to specific directions, such as turning to a specific page,
4. waiting while students read silently if the teacher is not also reading, not monitoring, not engaging in some other activity, but instead is simply daydreaming,
5. waiting for students to complete an activity if the teacher is not monitoring the activity, not engaging in some other activity, but instead is simply daydreaming.

WT excludes:

1. time between a teacher asked question and the student's response, (AQ, IQ, or PQ)
2. time between a student's answer and the teacher's next behavior. (ML)

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Table 1

Profile of Award Winning Teachers

Teacher # & Gender	Grade Level	Student Group *	Years of Experience	Grad Rdg Courses	Last Rdg Course
1 - F	3	L	17	3	1981
2 - F	3	A	21	5	1978
3 - F	3	L	18	7	1975
4 - M	4	L	13	0	1972
5 - M	5	A	25	0	1960
6 - F	5	L	16	0	1978
7 - M	5	L	18	2	1971
8 - F	5	H	20	3	1972
9 - M	5	L	20	9	1971
10 - F	6	A	24	2	1967
11 - M	6	A	21	4	1970
12 - M	6	H	18	3	1985
mean			19.25	3.17	
sd			3.33	2.79	

* A = Average, H = High, L = Low

Table 2

Profile of Masters Degree Teachers

Teacher # & Gender	Grade Level	Student Group *	Years of Experience	Grad Rdg Courses	Last Rdg Course
13 - F	3	A	20	2	1969
14 - F	3	A	12	3	1975
15 - M	3	A	16	9	1973
16 - F	3	H	19	4	1975
17 - F	4	L	14	4	1978
18 - F	4	H	15	2	1984
19 - M	6	L	23	5	1974
20 - M	6	L	13	3	1983
21 - M	6	H	22	13	1971
22 - F	6	L	14	12	1971
23 - M	6	L	17	3	1972
24 - F	6	A	17	5	1974
mean			16.83	5.42	
sd			3.53	3.80	

* A = Average, H = High, L = Low

Table 3

Profile of Non-Masters Teachers

Teacher # & Gender	Grade Level	Student Group *	Years of Experience	Grad Rdg Courses	Last Rdg Course
25 - F	3	H	1	0	1984
26 - F	3	A	16	0	1968
27 - F	3	L	19	1	1966
28 - F	3	L	9	0	1974
29 - F	4	L	1	1	1983
30 - M	4	H	4	0	1981
31 - F	4	A	17	1	1966
32 - M	5	A	6	0	1978
33 - M	5	H	2	0	1983
34 - M	6	H	11	1	1974
35 - F	6	L	16	1	1960
36 - M	6	L	9	0	1976
mean			9.25	.42	
sd			6.58	.51	

* A = Average, H = High, L= Low

Table 4

Minutes Spent on Reading Activities

Reading	Award Winning		Masters		Non-masters	
Activity	Not-cued	Cued	Not-cued	Cued	Not-Cued	Cued
Bldg Bkgrnd	115	65	56	78	35	34
Voc-Isolation	33	11	28	12	43	39
Voc-Context	44	14	56	16	46	56
Text Structure	46	36	3	21	5	23
Prequestion	4	5	7	9	13	11
All Pre Act	(242)	(131)	(150)	(136)	(142)	(163)
Silent Rdg	66	35	76	58	25	35
Round Robin	62	91	40	20	113	95
Purp Oral Rdg	144	125	55	75	48	14
Comprehension	460	529	270	267	241	277
Phonics	21	7	40	41	23	15
Struct Analysis	43	2	13	86	56	63
Word Meaning	143	63	53	28	101	104
Study Skills	19	38	71	237	230	94
Non-Instruct	112	86	103	129	97	106
Transition	35	28	27	34	24	17
Rdg Act Total	1347	1135	898	1111	1100	983

Table 5

Means and Standard Deviations of Prereading Activities

Prereading	Award Winning		Masters		Non-Masters	
Activity	Not-Cued	Cued	Not-Cued	Cued	Not-Cued	Cued
All Pre Act	16.99	11.01	17.65	15.16	15.63	18.73
	(9.26)	(7.63)	(7.62)	(9.27)	(12.63)	(13.30)
Bldg Bkgrnd	8.12	5.01	6.69	8.05	4.20	4.45
	(6.47)	(4.28)	(3.89)	(5.44)	(4.96)	(4.53)
Voc-Isolat	2.26	1.05	4.54	1.50	5.30	5.62
	(3.04)	(1.86)	(5.91)	(3.03)	(9.98)	(10.45)
Voc-Context	2.80	1.33	5.04	1.35	4.19	5.20
	(5.51)	(2.22)	(5.50)	(3.50)	(7.41)	(8.85)
Text Struct	3.38	2.98	.49	2.86	.57	2.59
	(7.40)	(4.85)	(1.14)	(5.76)	(1.96)	(5.34)
Prerdg Q.	.43	.65	.89	1.31	1.37	.86
	(1.23)	(1.63)	(1.34)	(2.95)	(2.90)	(1.97)

Note. The values represent percentages of observation time.

Table 6

Minutes Spent on Comprehension Teacher Behaviors

Teacher	Award Winning		Masters		Non-masters	
Behavior	Not-cued	Cued	Not-cued	Cued	Not-Cued	Cued
Tchr Model	9	12	4	5	6	4
Present Info	76	54	37	47	33	22
Instr Quest	52	58	22	27	17	22
Predict Quest	2	2	5	2	1	3
Comp Inst Total	(139)	(126)	(68)	(81)	(57)	(51)
Make Assign	23	30	16	8	8	7
Assess Quest	88	88	44	46	45	71
Corr Fdbk	75	69	30	33	37	56
Monit/List	72	111	79	73	67	68
Indiv Assist	13	49	10	4	12	2
Focus Atten	18	15	5	3	3	6
Rdg Aloud	9	16	3	5	1	.5
Using AV	0	0	1	2	0	.5
Respond to Q.	9	10	2	4	4	2
Posit Reinfor	9	7	9	7	1	5
Waiting	2	4	1	0	1	4
Distr & Collect	3	4	2	1	5	4
Comp Act Total	460	529	270	267	241	277

Table 7

Means and Standard Deviations of Comprehension Instruction Teacher Behaviors

Teacher Behaviors	Award Winning		Masters		Non-Masters	
	Not-Cued	Cued	Not-Cued	Cued	Not-Cued	Cued
All Comp Instr	9.98	10.34	8.58	10.83	6.53	5.40
	(5.72)	(8.89)	(4.86)	(7.01)	(7.30)	(3.10)
Model/Info &Instr Q.	9.77	10.22	7.98	10.48	6.45	5.15
	(5.80)	(8.85)	(4.80)	(6.77)	(7.33)	(3.03)
Predict Q.	.20	.13	.60	.36	.08	.25
	(.35)	(.30)	(.94)	(.43)	(.13)	(.43)

Note. The values represent percentages of observation time.

Table 8

Means and Standard Deviations of Comprehension-Related Teacher Behaviors

Teacher Behaviors	Award Winning		Masters		Non-Masters	
	Not-Cued	Cued	Not-Cued	Cued	Not-Cued	Cued
All Comp Activit	34.43	46.48	33.63	36.45	23.51	29.77
	(16.11)	(17.20)	(14.09)	(23.48)	(14.23)	(11.97)
Make Assgn	1.58	2.92	1.60	1.03	.99	.67
	(1.20)	(2.37)	(1.37)	(1.23)	(1.13)	(.78)
Indiv Asst	.84	3.64	.83	.23	.89	.23
	(1.50)	(4.38)	(1.71)	(.39)	(1.34)	(.60)
Assess. Q., Corr Fdbk & Monit/List	18.22	24.40	20.19	21.19	13.80	21.27
	(10.61)	(10.95)	(11.74)	(16.01)	(7.52)	(10.67)

Note. These values represent percentages of observation time.